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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,695	02/06/2002	Alexandre Da Rocha	Q68318	5644

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EXAMINER

MEEK, JACOB M

ART UNIT	PAPER NUMBER
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2637

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,695

Applicant(s)

ROCHA ET AL.

Examiner

Jacob Meek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 6 - 9 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 5, filed 7/22/05, with respect to 112, 2nd rejection of claim 6 have been fully considered and are persuasive. The rejection of claim 6 has been withdrawn in view of amended claim.
2. Applicant's arguments, see page 7, filed 7/22/05, with respect to rejection of claims 6 and 7 have been fully considered and are persuasive. The rejection of claims 6 and 7 has been withdrawn in view of amended claim.
3. Applicant's arguments with respect to claims 1 - 3 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim is considered a "hybrid" claim in that it recites limitations of both an apparatus and a method. This claim will need to be rewritten to clearly reflect either a method, or an apparatus.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imura (US-6,507,627) in view of Lindquist et al (US-6,373,909).

With regard to claim 1, Imura discloses a receiver for use in a spread spectrum system, receiver including a RF signal generator (see figure 1, 15 and column 4, lines 33 – 34) cooperating with a frequency transposer to transpose frequency of a received signal to a lower frequency (see figure 1, 14a & b and column 4, lines 39 – 45), a high-pass filter for filtering a static component and a dynamic component of interference of received signal induced by operation of RF generator and frequency transposer (see figure 1, 19a & b and column 4, line 66 – column 5, line 17), and a digitizer, in which device high-pass filter has a predetermined cut-off frequency to eliminate static component and a portion of dynamic component before signal enters digitizer (see column 5, lines 18 – 46 where this describes a predetermined cut-off frequency), a residual component of dynamic component of interference being eliminated by a digital filter placed after digitizer (see figure 1, 21a & b and column 4, lines 55 – 61). Imura differs in his lexicography regarding components but functionality is deemed identical and would have been obvious to one of ordinary skill in the art at the time of invention. Imura is silent with respect to corrector, but discloses a reception data processing unit. Lindquist discloses an apparatus utilizing an interference canceller (see figure 6, 130 and column 6, lines 54 - 62). It would have been obvious to one of ordinary

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skill in the art at the time of invention to provide digital DC offset compensation as part of reception data processing to improve system performance (see '909, column 1, lines 53 – 60).

With regard to claim 2, Imura is silent with respect to internal construction of his digital filter. Lindquist discloses an interference canceling circuit that removes DC offset voltage as part of interference cancellation process (see column 4, lines 20 – 32). It would have been obvious to one of ordinary skill in the art at the time of invention to provide digital DC offset compensation to improve system performance (see '909, column 1, lines 53 – 60) as part of reception processing.

With regard to claim 3, Imura discloses his digital filter in a Nyquist filter (see figure 1, 21a & b and column 4, lines 55 – 61). A Nyquist filter can be configured as a lowpass or a bandpass filter, the bandpass configuration providing high and low pass functionality. It would have been obvious to one of ordinary skill in the art at the time of invention to perform filtering to provide waveform shaping (see '627, column 4, lines 19 – 21).

Allowable Subject Matter

6. Claims 4, 5, and 7 - 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claim 6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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8. The following is a statement of reasons for the indication of allowable subject matter: Amendment of claim 6 has introduced a number of elements and functions that when taken together are not anticipated or rendered obvious by prior art. Jakobsen (US-6,757,340) discloses a technique for DC offset cancellation but lacks details of operation, and his apparatus does not match applicant's claimed system configuration. Lindquist ('909) and Imura ('627) each teach an apparatus similar to applicant's claimed invention, but fail to describe methods associated with offset cancellation.

Other Cited Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shiino et al (US-5,946,607) discloses a method and apparatus for the removal of DC offsets in a mobile radio receiver.

Love et al (US-5,422,909) discloses a method and apparatus for the removal of DC offsets in a mobile radio receiver.

Macq et al (US-6,335,641) discloses a method and circuit for DC offset calculation.

Jakobsson (US-6,757,340) discloses a method and circuit for DC offset compensation, but differs in structure of apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner, should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM
10/18/05



TEMESGHEN SHEBRETINSAE
PRIMARY EXAMINER
ok
10/27/05